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A WARNING SIGN

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Field of the Invention

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This invention relates to a warning sign particularly, but not exclusively, for
use on wet floors in public places.

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Background of the Invention

It is known from BG 2354625 and US Patent No. 6,338,213 to provide a two-part pivotable warning sign having a height-adjustable third part which is supportable by the pivotable two-parts. However, this arrangement requires that the warning sign has extra moldings to enable support of the third part. This results in more complex tooling and thus increased costs.

The present invention seeks to provide an improved warning sign.

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Objects of the Invention

The objects of the invention are to provide a warning or cautionary sign suitable for janitorial purposes; to provide such a warning sign which expands vertically to provide improved warning visibility; to provide such a sign which is sturdy, lightweight and rust-free; to provide such a sign which can be handled roughly and still remain functional; and to provide such a sign which is well suited for its intended purposes.

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Summary of the Invention

According to a one aspect of the present invention there is provided a warning sign comprising first and second parts pivotably interconnected at their in use upper ends and pivotable between a first storage position in which the first and second parts are arranged in side-by-side relationship and a second operative position in which the first and second parts are at an angle to one another, detent means for releasably retaining the first and second parts in the second operative position, and a third part releasably supportable by the detent means.

Preferred and/or optional features of the first aspect of the invention are set forth in ~~claims 2 to 16, inclusive~~ the claims.

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Brief Description of the Drawings

The invention will now be more particularly described by way of example, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view showing a first embodiment of a warning sign according to the invention, in an operative position.

Fig. 2 is a fragmentary perspective view showing a hinge between first and second parts of the warning sign shown in Fig. 1.

Fig. 3 is a fragmentary perspective view showing the upper part of the first and second parts of the warning sign in a storage position, and showing the location of a third part in phantom lines.

Fig. 4 is a front view of a third part of a second embodiment of the warning sign, in accordance with the invention.

Fig. 5 is a perspective view of a third part of a third embodiment of the warning sign, in accordance with the invention.

Fig. 6 is a perspective view of a third part of a fourth embodiment of the warning sign, in accordance with the invention.

Description of the Preferred Alternate Embodiments

Referring firstly to Figs. 1 to 3 of the drawings, there is shown therein a warning sign which, for example, can be used to caution the general public in a public place that a potential hazard exists in the vicinity of the sign, such as a wet floor or maintenance work in a restaurant, hospital, railway station and such like. The warning sign comprises first and second parts 10 and 11 pivotably connected together by hinges 12 which are at the in use upper ends of the two parts 10 and 11, but spaced from the upper edges. The hinges 12 enable movement of the first and second parts 10 and 11 between a first storage position in which the two parts lie parallel in a side-by-side relationship (see Fig. 3) and a second operative position in which the two parts are at an angle to one another (See Fig. 1). Each part 10, 11 has feet 13 at its in use lower end so that when the parts 10 and 11 are in the second operative position, the feet will support the sign in an upright position as shown in Fig. 1.

Each part 10 and 11 has a pressed portion 14, for receiving a caution sign, and a hand hole 15. The hinges 12 are integrally formed as part of the side walls defining the hand holes 15. The pressed portions 14 are preferably raised relative to the immediate portions of the parts 10, 11 surrounding the pressed portions 14. However, the pressed portions 14 could be recessed. The pressed portion 14 promotes focusing of a viewer's eye on the caution sign.

As best seen in Fig. 3, each part 10, 11 has a projection 16 at the upper end of its inner face spaced from and above the hinges 12. Each projection 16 securely releasably engages an aperture or recess (hereinafter simply referred to as

1 'aperture 17') in the other part 11 or 10 when the two parts 10 and 11 are in the
2 second operative position. The projections 16 are a snap or friction fit in
3 corresponding apertures 17 to allow the two parts to be retained in the second
4 operative position, thereby reducing a tendency for the sign to collapse and/or fall
5 over when impacted.

6 As shown in Figs. 1 and 3, the sign also comprises a third part 18. This third
7 part 18 comprises a body portion 19 on which a caution sign can be displayed, in
8 addition to, or as an alternate to, the recess 14. The body portion 19 is a planar or
9 substantially planer element and the caution sign is typically displayed on both
10 major surfaces. However, the body portion 19 could have a polyhedral or cylindrical
11 form allowing the caution sign to be displayed to a greater field of view.

12 The third part 18 also comprises a support portion 20 adjacent to the bottom
13 of the body portion 19. The support portion 20 includes two openings 22, in the
14 form of through- holes, dimensioned to be able to receive the projections 16. When
15 the first and second parts 10 and 11 are in the first storage position, i.e., when the
16 projections 16 are released from engagement with the apertures 17, the support
17 portion 20 of the third part 18 can be slid between the first and second parts 10 and
18 11 and the projections 16 can be inserted into and through the openings 22. The
19 length of the projections 16 and the thickness of the support portion 20 are such
20 that the projections 16 extend a sufficient distance beyond the support portion 20
21 to enable secure and releasable engagement with the apertures 17 when the first
22 and second parts 10 and 11 are in the second operative position.

1 In the second embodiment of the warning sign, and as shown in Fig. 4, the
2 openings in the support portion 20 of the third part 18 are recesses 22 formed in the
3 bottom edge of the support portion 20. The upper edges of the first and second
4 parts 10 and 11 may be relied on to aid stabilization of the third part 18. Thus, the
5 upper edges of the first and second parts 10, 11 may grip or clamp the third part 18
6 when in the second operative position.

7 Preferably, the recesses 22 are keyhole shaped so that the projections 16
8 of each part 10, 11 are snap-fit receivable in the recesses 22, when the projections
9 16 are engaged in the apertures or recess 17 of the first and second parts 10, 11
10 and when the projections 16 are disengaged from the apertures or recesses 17.
11 This inhibits undesired removal of the third part 18, while still allowing simplified
12 engagement and disengagement of the third part 18, when required, when the first
13 and second parts 10, 11 are arranged in the storage and operative positions.

14 Fig. 5 shows a modified third part 18 for use with a third embodiment of the
15 warning sign. Except where stated or renumbered, the warning sign of the third
16 embodiment corresponds to the warning signs of the first and second embodiments.

17 In this embodiment, body portion 19 of the third part 18 is formed with a clip.
18 Preferably, the clip is an elongate open-ended U-shaped channel 24. The channel
19 24 is dimensioned to accept and releasably hold a fourth display part (not shown)
20 as a reasonably tight push-fit along at least its bottom end. The fourth display part
21 has a surface for prominently displaying, or is shaped to depict, a warning or caution
22 sign (not shown).

1 It is envisaged that the warning sign is provided with a selection of fourth
2 display parts, and that the user simply selects the one with the appropriate warning
3 or caution.

4 The support portion 20 of the third part 18 is formed with either the through-
5 holes 22 of the first embodiment or the recesses of the second embodiment. In this
6 way, the third part 18 is releasably engageable with and disengageable from the
7 detent means.

8 This third embodiment not only provides for quick and reliable interchange
9 of warning or caution signs, due to the push-fit engagement of the fourth display
10 part, but also still provides for quick release of the third part from the detent means.

11 Fig. 6 shows a further modified third part 18 for use with a fourth embodiment
12 of the warning sign. Again, except where stated or renumbered, the warning sign
13 of the fourth embodiment corresponds to the warning sign of the first and second
14 embodiments.

15 The third part 18 comprises two members 28 and 30. Each member 28, 30
16 includes a body portion 19 and a support portion 20. Each body portion 19
17 comprises a clip. The clip is preferably an elongate U-shaped channel 32, closed
18 at one end adjacent to the support portion 20 and open at the other end. Each U-
19 shaped channel 32 is dimensioned to accept and releasably hold a fourth display
20 part 26 as a reasonably tight push-fit or sliding fit along one side and part of the
21 bottom end. As with the third embodiment, the fourth display part 26 has a surface
22 for prominently displaying, or is shaped to depict, a warning or caution sign (not
23 shown).

1 The support portion 20 of each member 28, 30 is formed with either one
2 through-hole 22 of the first embodiment or one recess of the second embodiment.
3 In this way, the two members 28, 30 of the third part 18 can be releasably engaged
4 with the detent means, as described in the first and second embodiments.

5 The members 28, 30 are supported by the detent means in an upstanding
6 fashion, such that the longitudinal extents of the elongate channel 32 extend in
7 parallel or substantially in parallel with each other. Disengagement from the detent
8 means is as described with regard to the first and second embodiments.

9 A further modification, not shown, comprises a third part having a body
10 portion in the form of a transparent holder. Preferably, the holder is a transparent
11 sleeve. The support portion of the third part is as previously described. In this
12 case, the fourth display part (which has also been described above) is releasably
13 engaged with the third part by simply being slid into the transparent sleeve.

14 The warning sign could have only one projection 16 and corresponding
15 aperture 17. This projection could be of non-cylindrical transverse cross section,
16 enabling the third part when supported thereon to remain upright. In addition, or as
17 an alternative, a supporting or seating lip or ledge could be provided on one or each
18 first and second part 10, 11 and on which an edge of the third part abuts when
19 between the first and second parts 10, 11.

20 Typically, all parts are formed of plastics material with the third part and/or
21 fourth part being resiliently flexible in a direction parallel to the ground on which the
22 warning sign is erected. Due to this flexibility and the secure support of the third
23 part through the holes and/or recesses when in the operative position, stability of

1 the warning sign is increased due to the realization of a "pendulum" effect that
2 allows reversal of momentum on impact of the third part and/or fourth part, i.e.,
3 when a person accidentally knocks the caution sign with a shoulder bag, for example,
4 thus resulting in little or no relative movement of the warning sign subsequent to
5 impact.

6 The embodiments described above are given by way of example only and
7 other modifications will be apparent to persons skilled in the art without departing
8 from the scope of the invention as defined by the appended claims. For example,
9 the or each recess in the support portion of the third part could be along the side
10 edge or side edges of the third part.

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